

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
Tri-Chem Industries - Removal Polrep  
Initial Removal Polrep



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region VI

**Subject:** POLREP #1  
Initial  
Tri-Chem Industries  
A6RA  
Cresson, TX  
Latitude: 32.5511480 Longitude: -97.6592910

**To:** Anthony Buck, TCEQ  
Reggie Cheatham, EPA HQ  
Ronnie Crossland, EPA R6

**From:** Adam Adams, OSC  
**Date:** 3/19/2018  
**Reporting Period:** March 15 thru March 17, 2018

## 1. Introduction

### 1.1 Background

Site Number:	A6RA	Contract Number:
D.O. Number:		Action Memo Date:
Response Authority:	CERCLA	Response Type:
Response Lead:	PRP	Incident Category:
NPL Status:	Non NPL	Operable Unit:
Mobilization Date:	3/15/2018	Start Date:
Demob Date:		Completion Date:
CERCLIS ID:		RCRIS ID:
ERNS No.:		State Notification:
FPN#:		Reimbursable Account #:

#### 1.1.1 Incident Category

Emergency Response

#### 1.1.2 Site Description

Incident site is a specialty chemical blending facility. Materials onsite include - phosphoric acid, citric acid, silicone antifoam and emulsions, phosphates (sodium tripoly phosphate, sodium hexametaphosphate, tetrasodium pyrophosphate, tetrapotassium pyrophosphate), asphalt additives, glycol ether DPM, copper sulfate, sodium hydroxide, sodium hydrosulfide, and other chemicals (no inventory provided yet).

Tri-Chem is described as a manufacturer and distributor of specialty chemicals for food and industrial applications with a product line of silicone and non-silicone antifoams/defoamers, silicone emulsions, phosphoric acid, phosphate derivatives, and custom blending solutions.

A fire with multiple explosions occurred in the morning hours of 3/15/2018. The fire is ongoing at the facility, as of the date of this POLREP.

#### 1.1.2.1 Location

Incident location is 2600 North Cresson Highway, Cresson, Hood County, Texas.

Latitude: 32°33'08"North  
Longitude: -97°39'32" West

Offsite impact involves firefighting water runoff (low pH) to an adjacent railroad right-of-way at this time.

#### 1.1.2.2 Description of Threat

Due to the chemicals involved, the fire departments pulled back from the area and let the fire burn. Highway 171 (adjacent to the facility) was closed in both directions from Highway 377 to Monroe Highway. There is media coverage; DPS set up a PIO at the fire station. Runoff of chemicals has also been reported, flowing towards an adjacent railroad track to the south.

#### 1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results

Upon arrival and initial assessment with local fire department officials on 3/15/2018, the EPA Team conducted air monitoring around the facility. Preliminary results detected hydrogen cyanide and ammonia immediately downwind of the facility (intersection of facility entrance and North Cresson Highway / winds were out of the south). Chemicals stored at the facility combined with firefighting water were observed migrating offsite in a southerly direction. The EPA team collected pH measurements of the liquid ranging between 1 and 2. These low pH conditions were observed in the southeast area of the facility property, an adjacent property, and railroad right-of-way (Ft. Worth & Western Railroad).

The EPA ASPECT aircraft was deployed for aerial air monitoring activities. ASPECT air monitoring measured 1-butene, a common byproduct of the combustion of organics, at 1.2 ppm over the facility. Approximately 50 meters downwind of the facility, ASPECT measured 1-butene, 2-butene, alcohol, and isobutylene at 1.7 ppm, 2.8 ppm, 0.5 ppm, and 1.9 ppm, respectively, before being called off the response. EPA OSC Adams released the ASPECT aircraft at 1530 hours on 3/15/2018.

## 2. Current Activities

### 2.1 Operations Section

#### 2.1.1 Narrative

On scene fire department officials have decided to let the fire burn itself out and not take offensive or defensive actions at this time. Fire is visible in the southern area inside the facility building. One victim (assumed deceased) remains unaccounted for. One victim was flown to a Dallas medical facility for treatment. A third victim was transported by ambulance to a nearby medical facility for treatment.

#### 2.1.2 Response Actions to Date

Firefighting efforts were initiated and two victims (employees) were transported to area hospitals due to injuries sustained by the fire and explosion. Firefighting efforts were discontinued and the fire is being allowed to burn itself out at this time. Soil berms were constructed along the spill pathway to stop further downgradient migration of the low pH liquids.

Preliminary assessment by EPA found the faint plume flowing north across highway 171 to have ammonia at 1 ppm (PEL 50 ppm) and HCN at 3 ppm (PEL 10 ppm). Liquids had drained from the facility to the ditch along the east of the property and to the south, at which point it flowed east along the railroad tracks and then under the tracks. pH was measured on the north side of the tracks at pH 2. The drainage had been bermed up about half way from the building to the tracks.

Air monitoring along highway 171 in the faint plume measured HCN and ammonia at 2 ppm and 1 ppm, respectively. The Fire Chief opened highway 171 at approximately 4 pm and plans to attempt to re-enter the facility in the morning after the fire is out. PRP contractors have bermed up the acid run-off to the south and getting vacuum trucks to recover the liquids.

On 16 March 2018, the EPA team continued conducting air monitoring at existing locations and water pH level checks along the spill pathway. Air monitoring results for HCN (1 ppm) and CO (5 ppm) continue to indicate levels below the OSHA PEL. pH levels continued to be 2-3 at the downstream culvert. The PRP contractor began removing liquids along the spill pathway to stage in frac tanks onsite. The Site is controlled by OSHA and the Fire Marshalls until investigations have been completed.

EPA met with the facility owner and operator on the morning of 16 March and requested a facility diagram, inventory, and SDS's. The PRP's objectives are to contain any chemicals from leaving the Site and chemicals that have migrated off-site to be contained and recovered with no further migration. The fire continues to smolder, and the search for the missing person continued.

On 17 March 2018, EPA arrived on-site and conducted perimeter air monitoring around the facility. Chlorine gas (Cl<sub>2</sub>) was detected on the east side at 1.2 ppm (PEL 1 ppm; IDLH 10 ppm) at approx 8 am (winds from the north; calm less than 5 mph). The detection was not sustained, so operations continued with monitoring being conducted.

The PRP contractor objectives today include 1) securing the Site for a forecasted storm for 3 pm to midnight; 2) stage containers (empty or not) so as they won't be filled with rainwater and over top; 3) maintain site security (control access); and 4) if time permits continue processing facility. The PRP contractor excavated the east drainage ditch, brought 13 covered roll offs on-site for contaminated soil, and secured a second berm along the east property border drainage pathway. The PRP contractor continued recovery of liquids from the east drainage path by the FWWR tracks. pH levels of the remaining water were measured as 5-6 and produce a froth when stirred. The southwest portion of the neighboring lumber yard property that was impacted by the run-off from the incident was covered with poly sheeting by the PRP contractor. A trench was dug along the west border of the facility building footprint, and the northeast to prevent chemical run-off and chemical reactions during the storm event. Excavated soils were staged in 13 covered roll-off containers. Containers were staged south of the facility building and covered with poly.

EPA continued air monitoring around the facility perimeter. Air monitoring detected contaminants below PELs: downwind ESE 5-8 mph at 1600, CO 4 ppm; NH<sub>3</sub> 1 ppm; HCN 1 ppm; VOCs 0.1 ppm. Cl<sub>2</sub> was measured at 1650 during light rain at 1.4 ppm (PEL 1 ppm; IDLH 30 ppm). Inclement weather and Cl<sub>2</sub> readings above the action level 0.5 ppm caused operations to cease temporarily until concentrations of Cl<sub>2</sub> were nondetect. The EPA team conducted monitoring for Cl<sub>2</sub> during and after the storm at shifting downwind locations and measured 0.0 ppm.

The search for the missing person continued. The facility continued to smolder.

#### 2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)

At this time, the PRP is Tri-Chem Industries.

#### 2.1.4 Progress Metrics

The PRP has not provided an inventory or approximate volumes of chemicals at this time, but has stated there were over 250,000 lbs of chemicals in the building before the incident.

Waste Stream	Medium	Quantity	Manifest #	Treatment	Disposal

## **2.2 Planning Section**

### **2.2.1 Anticipated Activities**

The Fire Marshall's office and OSHA will continue to search for the missing person with support by the PRP's contractors.  
The PRP's contractors will continue to recover liquids from the drainage pathway and make efforts to contain further migration.  
The PRP's contractors will excavate contaminated soils along the drainage path.  
The PRP's contractors will secure, as Site conditions permit, chemicals, chemical residues, and chemical wastes to prevent further reactions and releases.  
EPA will continue to conduct air monitoring and assess Site conditions to protect public health and the environment.

## **2.3 Logistics Section**

No information available at this time.

## **2.4 Finance Section**

## **2.5 Other Command Staff**

Upon arrival, EPA entered Unified Command with the OSHA, TCEQ, the Fire Marshall's office, Fire Chief, and PRP's contractor (representing the PRP).

## **3. Participating Entities**

### **3.1 Unified Command**

Upon arrival, EPA entered Unified Command with the OSHA, TCEQ, the Fire Marshall's office, Fire Chief, and PRP's contractor (representing the PRP).

### **3.2 Cooperating Agencies**

In addition to EPA, the following fire departments were on scene on 15 March: Cresson FD, Tolar Volunteer FD, Spring Creek FD, North Hood County Volunteer FD, Pecan Plantation FD, Ft. Worth FD, De Cordova FD, Grandbury FD, Texas EMS, Baker Dover FD, Parker County FD.

Others onsite include – Wood County Emergency Management, Ft. Worth Red Helmets, Hood County Sheriff's office, TCEQ, United Co-Op (electric), Hood County Fire Marshall, State Fire Marshall, ATF, Texas DPS, OSHA, and TxDOT.

Due to the large number of agencies present, this list may not be all inclusive of responding agencies.

## **4. Personnel On Site**

The PRP contractor is National Rapid Response, who subcontracted TAS Environmental Services.

## **5. Definition of Terms**

No information available at this time.

## **6. Additional sources of information**

### **6.1 Internet location of additional information/report**

Additional information can be obtained at [www.response.epa.gov/TriChemIndustriesFire](http://www.response.epa.gov/TriChemIndustriesFire).

### **6.2 Reporting Schedule**

This is an Initial POLREP. Additional POLREPs will be submitted response efforts warrant.

Special POLREP - to report significant special events during the response.

Progress POLREP - to report updates to the response over a given amount of time.

Final POLREP - to report final documentation of the response and completion.

## **7. Situational Reference Materials**

No information available at this time.